NHDES

The State of New Hampshire

Department of Environmental Services



Michael P. Nolin Commissioner

January 30, 2004 **Letter of Deficiency** DSP #04-009

Mr. Leon Filion Newmarket Community Development Corporation Bay Road Newmarket, NH 03857

RE: Macallen Dam #177.01, Newmarket

Dear Mr. Filion:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on June 6, 2003. During this visual inspection and/or file review, the following deficiencies were observed:

- 1. There was brush growing from the stonework in the left abutment;
- 2. There were at least three areas of leakage along the concrete fish ladder. This is an outstanding item from the 1995 and 2001 reissued Letter of deficiency (LOD);
- 3. There were areas of deteriorated concrete noted in the following locations. These areas were noted in both the 1995 and 2001 reissued LOD:
 - a. the upstream face of the concrete piers of the gate structure, at waters edge;
 - b. the concrete face of the left spillway abutment wall;
- 4. There was leakage noted from the sluice gate seats and from the upper portion of the farthest left gate;
- 5. There is no operation and maintenance plan (O&M) on file with DES; and
- 6. The emergency action plan (EAP) needs to be updated, reformatted and tested.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

April 1, 2004:

- 1. Prepare and submit to the DES a written operational procedure plan. The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel. Refer to the enclosed guidelines;
- 2. Update, reformat, and test the EAP. Contact DES EAP Coordinator Bethann McCarthy at 271-3406 for further details;

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November 1, 2004:

- 3. Repair the deteriorated concrete noted in the following locations. These areas were noted in both the 1995 and 2001 reissued LOD;
 - a. The upstream face of the concrete piers of the gate structure;
 - b. The concrete face of the left spillway abutment wall;
- 4. Remove the brush growing from the stonework in the left abutment; and
- 5. Investigate and repair, if necessary, the leakage noted from the sluice gate seats and from the upper portion of the farthest left gate.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the bottom of the previous page.

Sincerely,

Dam Safety Engineer

Attachments Guideline for an O&M plan, DB8, DB13 cc: Gretchen Rule

Town of Newmarket, Al Dixon

Bethann McCarthy, P.E., EAP Coordinator Certified # 7000 1670 0000 0586 2817

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